

Appl. No. 10/641,355
Amdt. dated May 28, 2004
Reply to Office action of April 28, 2004

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Original) A method for the production of olefin product from an oxygenate-containing feedstock, comprising:

exposing a molecular sieve catalyst to an oxygenate-containing feedstock in a reaction zone under conditions effective to convert the oxygenate-containing feedstock to an olefin product;

stripping at least a portion of the exposed catalyst with a stripping gas; and
returning at least a portion of the stripped catalyst to the reaction zone without regenerating.

2. (Original) The method of claim 1, further comprising regenerating at least a portion of the stripped catalyst and returning at least a portion of the regenerated catalyst to the reaction zone.

3. (Original) The method of claim 1, wherein a ratio defined by time of exposing the catalyst to the oxygenate containing feedstock to time of stripping the exposed catalyst with the stripping gas is from 1:1 to 20:1.

4. (Original) The method of claim 1, wherein a ratio defined by time of exposing the catalyst to the oxygenate containing feedstock to time of stripping the exposed catalyst with the stripping gas is greater than 20:1.

5. (Original) The method of claim 1, wherein the stripping gas is selected from the group consisting of steam, nitrogen, air, helium, argon, methane, carbon dioxide, carbon monoxide, flue gas, hydrogen, and combinations thereof.

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6. (Original) The method of claim 1 wherein the stripping gas comprises steam.
7. (Original) The method of claim 6 wherein the stripping gas flows at a rate of 1 to 10 lbs per hour per 1000 lbs of catalyst per hour.
8. (Original) The method of claim 7 wherein the stripping gas flows at a rate of 1 to 4 lbs per hour per 1000 lbs of catalyst per hour.
9. (Original) The method of claim 1, wherein the stripped catalyst is stripped in a separate unit apart from the regenerator.
10. (Original) The method of claim 1, wherein the stripping of the exposed catalyst removes at least 25% of the hydrocarbons adhered thereto.
11. (Original) The method of claim 1, wherein the stripping of the exposed catalyst removes at least 50% of the hydrocarbons adhered thereto.
12. (Original) The method of claim 1 wherein the stripped catalyst contains less than 10% by weight of hydrocarbons selected from the group consisting of olefins, aromatics, parafins, oxygenates, and mixtures thereof.
13. (Original) The method of claim 1, wherein the oxygenate-containing feedstock comprises at least one compound selected from the group consisting of methanol; ethanol; n-propanol; isopropanol; C₄ - C₂₀ alcohols; methyl ethyl ether; dimethyl ether; diethyl ether; di-isopropyl ether; formaldehyde; dimethyl carbonate; dimethyl ketone; acetic acid; and mixtures thereof.
14. (Original) The method of claim 1, wherein the molecular sieve catalyst comprises a silicoaluminophosphate molecular sieve and a binder.
15. (Original) The method of claim 14, wherein the silicoaluminophosphate molecular sieve is selected from the group consisting of SAPO-5, SAPO-8, SAPO-11, SAPO-16, SAPO-17, SAPO-18, SAPO-20, SAPO-31, SAPO-34, SAPO-35, SAPO-36, SAPO-37, SAPO-40, SAPO-

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41, SAPO-42, SAPO-44, SAPO-47, SAPO-56, metal containing forms thereof, and mixtures thereof.

16. (Original) The method of claim 14, wherein the silicoaluminophosphate molecular sieve has a Si:Al atomic ratio of at least 0.30.

17. (Original) The method of claim 1, wherein the reaction zone comprises temperatures of about 350 to 550 °C while exposing the molecular sieve catalyst to the oxygenate-containing feedstock.

18. (Original) The method of claim 1, wherein the oxygenate-containing feedstock contacts the molecular sieve catalyst in the reaction zone at an average gas superficial velocity of greater than 1 meter per second.

19. (Original) An olefin product made according to the method of claim 1.

20. (Original) The method of claim 1, further comprising contacting the olefin product with a polyolefin-forming catalyst under conditions effective to form a polyolefin.

21. (Original) A polyolefin made by the process of claim 20.